

[Info](#)   [Results](#)   [Preview](#)   [Edit](#)
**202602UECM3463OE1b**[Start again](#)**Review of preview**

<b>Started on</b>	Wednesday, 25 February 2026, 11:28 AM
<b>Completed on</b>	Wednesday, 25 February 2026, 11:28 AM
<b>Time taken</b>	8 secs
<b>Grade</b>	<b>0</b> out of a maximum of 10 ( <b>0%</b> )

**1** The probability density function of loss amounts is given by

Marks: 1  $f(x) = 4(270-x)^3/270^4, 0 < x \leq 270$

An insurance coverage for these losses has an ordinary deductible of 100 Calculate the mean excess loss at 100. \_\_\_\_\_

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 34

Marks for this submission: 0/1.

**2** You are given:

Marks: 1

- Auto liability losses for a group of insureds (Group R) follow a Pareto distribution with  $\alpha = 6$  and  $\theta = 270$ .
- Losses from second group (Group S) follow a Pareto distribution with  $\alpha = 2$  and  $\theta = 380$ .
- Group R has an ordinary deductible of 297, while Group S has a franchise deductible of 475.

Calculate the amount that the expected cost per payment for group S exceeds that for Group R.

\_\_\_\_\_

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 1216.6

Marks for this submission: 0/1.

3

The distribution of  $X$  is specified by it's hazard rate function

Marks: 1

$$h(x) = xe^{-0.8x} / \int_x^{\infty} s e^{-0.8s} ds, x > 0$$

Determine the average payment per loss under a policy with 4 franchise deductible. \_\_\_\_\_

Answer:

  
X

[Make comment or override grade](#)

Incorrect

Correct answer: 0.9498

Marks for this submission: 0/1.

4

Let  $X$  be a discrete random variable with probability generating function

Marks: 1

$$P_X(z) = 0.35z^{250} + 0.23z^{750} + 0.23z^{1250} + 0.13z^{1750} + 0.06z^{2250}$$

Calculate LER(1,350). \_\_\_\_\_

Answer:

  
X

[Make comment or override grade](#)

Incorrect

Correct answer: 0.883516

Marks for this submission: 0/1.

5

Marks: 1

An individual losses has the Pareto distribution with parameters  $\alpha = 3$  and  $\theta = 240$  with deductible of 59.4, coinsurance of 83% and a loss limit of 118.80 (before application of the deductible and coinsurance) are applied to each individual loss. Loss sizes are affected by 10% inflation. Determine the variance of the loss payment on the per payment basic. \_\_\_\_\_

Answer:

  
X

[Make comment or override grade](#)

Incorrect

Correct answer: 256.64

Marks for this submission: 0/1.

6

Marks: 1

In a major college football program, the revenue from ticket sales for a home game is being modeled as a Pareto distribution with  $\alpha = 5$  and  $\theta = 1,400,000$ . For each home game, the coach receives a bonus only if revenue exceeds 1,120,000. The amount of bonus is 7% of the revenue in excess of 1,120,000. If there are 7 home games in each football season, calculate the expected bonus the football coach receives each football season. \_\_\_\_\_

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 16337.06752

Marks for this submission: 0/1.

7 Annual losses follow a Pareto distribution with  $\alpha = 2.90$  and  $\theta = 1,110$ . Calculate  $\text{VaR}_{0.984}$ .

Marks: 1 \_\_\_\_\_

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 3509.467865

Marks for this submission: 0/1.

8 Annual losses follow a Pareto distribution with parameters  $\alpha = 5$  and  $\theta = 500$ .  $\text{TVaR}_p = 820$ ,

Marks: 1 Determine  $p$ . \_\_\_\_\_

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 0.976203

Marks for this submission: 0/1.

9 The losses experienced by an insurance company have the following probability distribution:

Marks: 1

Loss size	Probability
0	0.60
150	0.25
250	0.10
1,300	0.05

Calculate the  $\text{CTE}_{0.74}$ . \_\_\_\_\_

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 409.615385

Marks for this submission: 0/1.

10 Annual losses follow a Gamma distribution with parameters  $\alpha = 3$  and  $\theta = 900$ .  $\text{VaR}_{0.95} =$

Marks: 1 5666.21, Determine  $\text{TVaR}_{0.95}$ . \_\_\_\_\_

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 6841.8

Marks for this submission: 0/1.

 [Moodle Docs for this page](#)

---

You are logged in as [Yong Chin Khian](#) ([Logout](#))

[UECM3463-202602-EZZ](#)